Key Criteria 7 - Assessing a relative ozone AQ impact for potential nearby contributing areas upwind of violating sites in Wisconsin

June 17, 2003

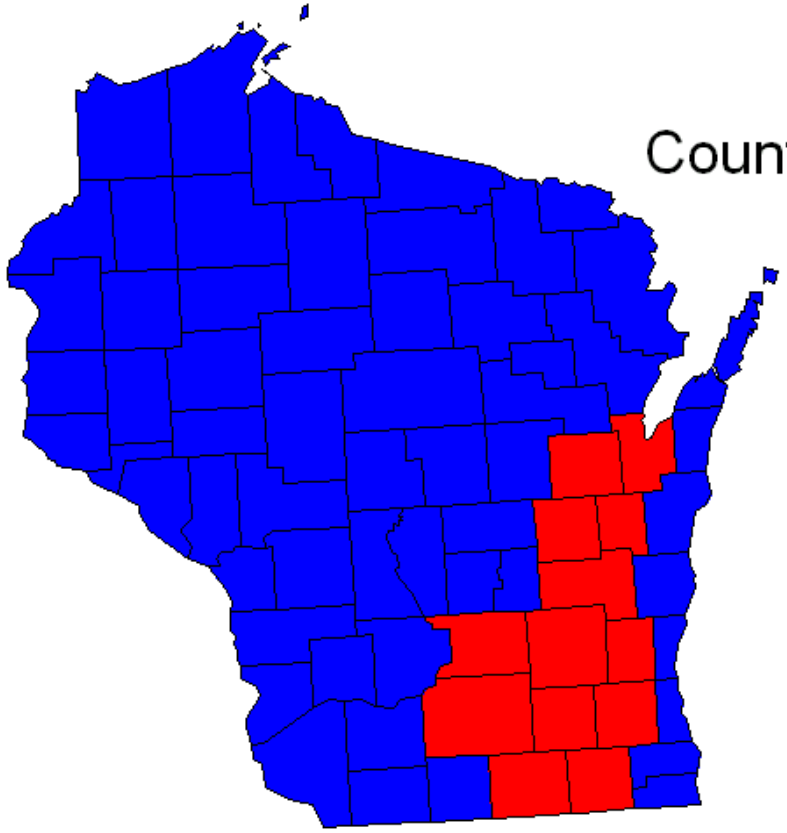
The following maps portray the impact of NOx plus VOC emissions, NOx emissions alone and aggregate Mobile Sector emissions for the areas in Wisconsin assessed for potential contribution to violating sites. The counties included in the assessment include the area of south central and east central and north east Wisconsin presumed through population and emissions assessments to have a potential to impact the violation status of other counties in the state - both with elevated but attainment readings and those with violating readings. The assessment formed a basis for an earlier air program recommendation to designate a larger area based on a full assessment of contribution and the impact of the base emissions from the contributing areas on the monitored violation status for downwind areas. The assessment of this episode led to such a contribution conclusion for areas in northeastern, south central and east central Wisconsin.

2001 - June Episode
Fringe Area Impact “Contribution” Assessment

Modeled Impacts of Zero-Out emission reductions (NOx and VOC) from the non-Lake Shore Counties ranging from Rock County through Brown County and including the Dane Co and Fox Valley regions compared to AIRNOW 8-Hour Maps

Wisconsin Collar Counties

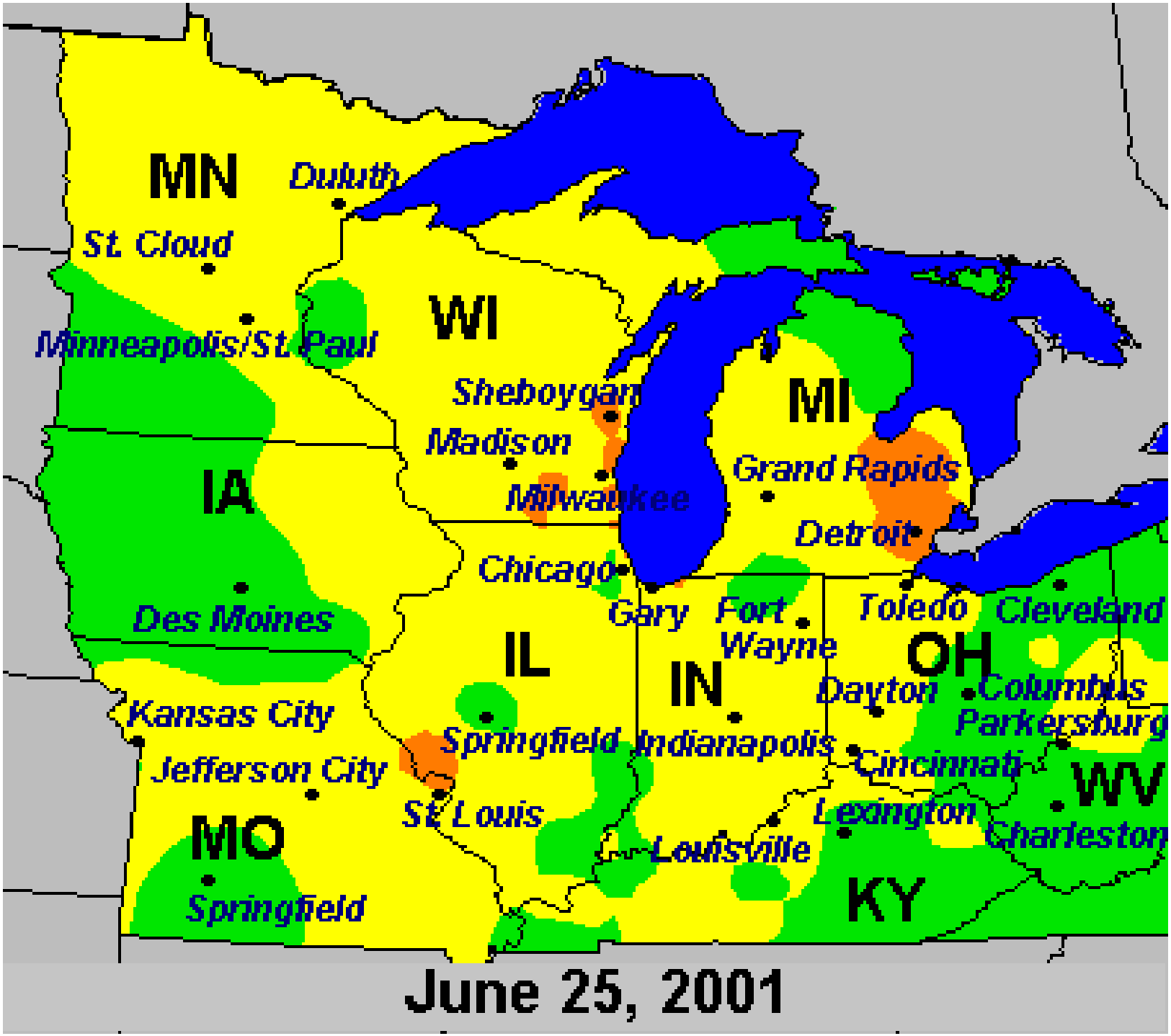
NAAQS 8-hour Ozone Standard Analysis



Counties Include:

Brown
Calumet
Columbia
Dane
Dodge
Fond du Lac
Jefferson
Outagamie
Rock
Walworth
Washington
Waukesha
Winnebago

Prepared by Gwendolyn Judson, WDNR. May 2003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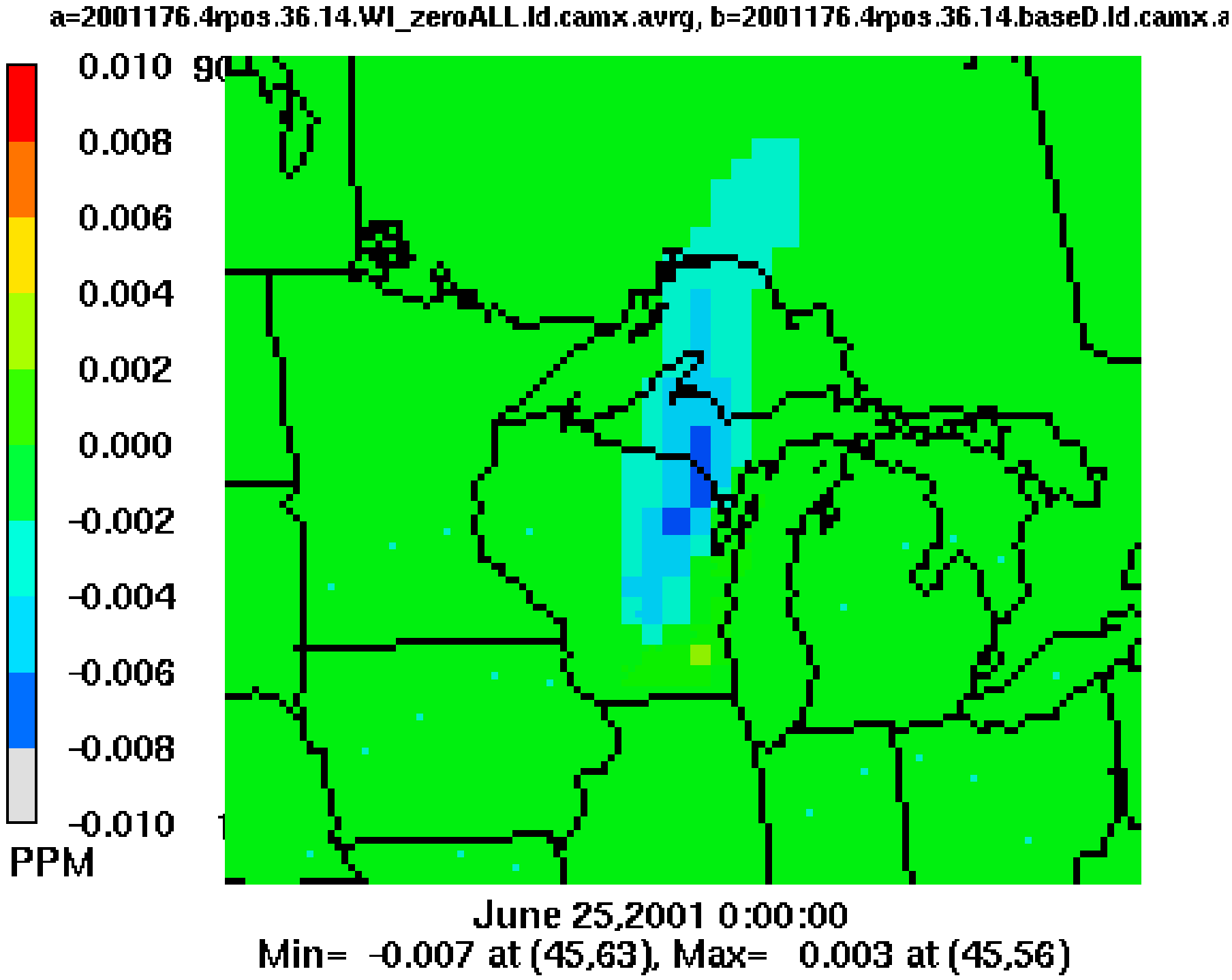
June 25, 2001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-0.004
-0.006
-0.008
-0.010
PPM
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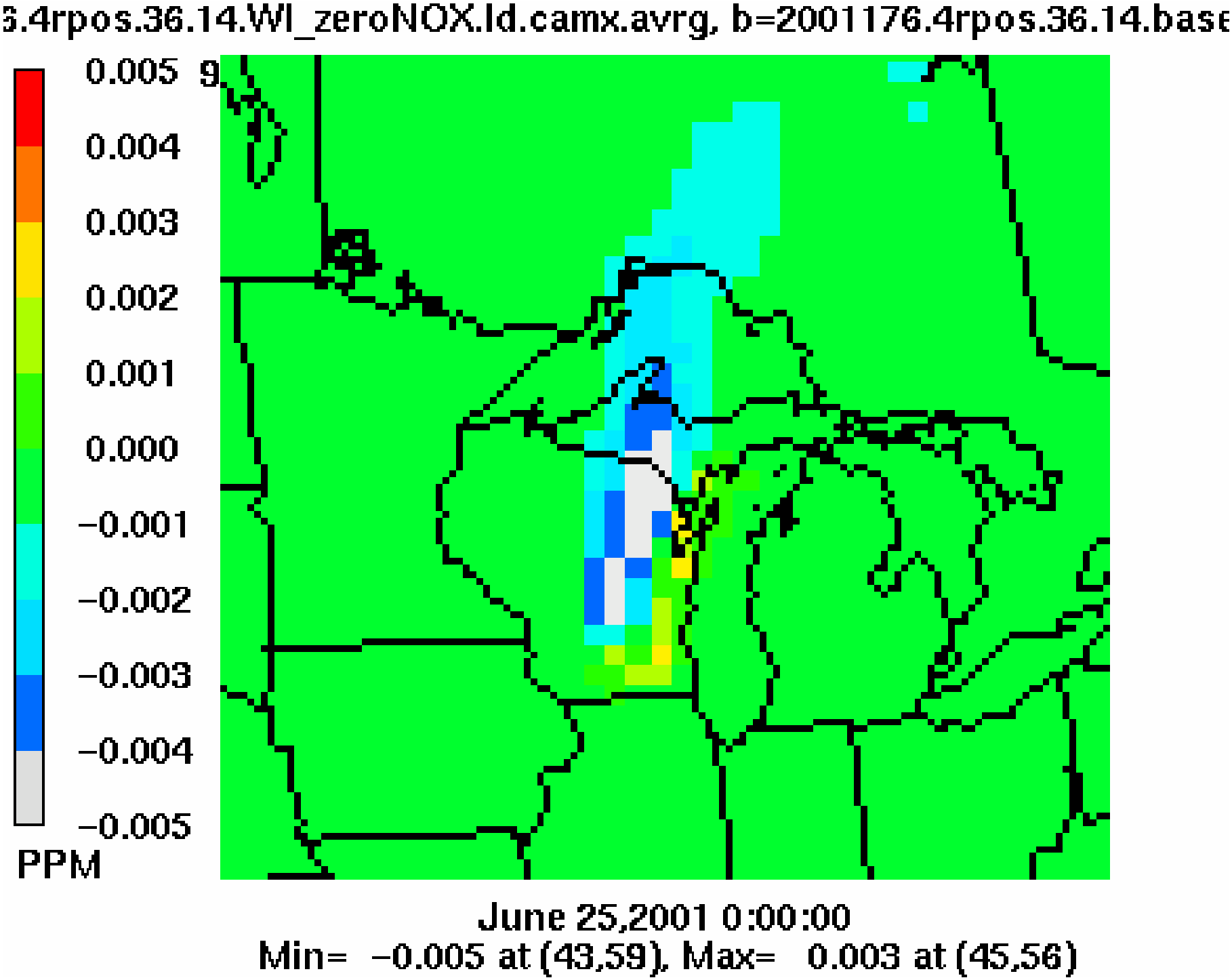
Min= -0.007 at (45,63), Max= 0.003 at (45,56)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−0.002
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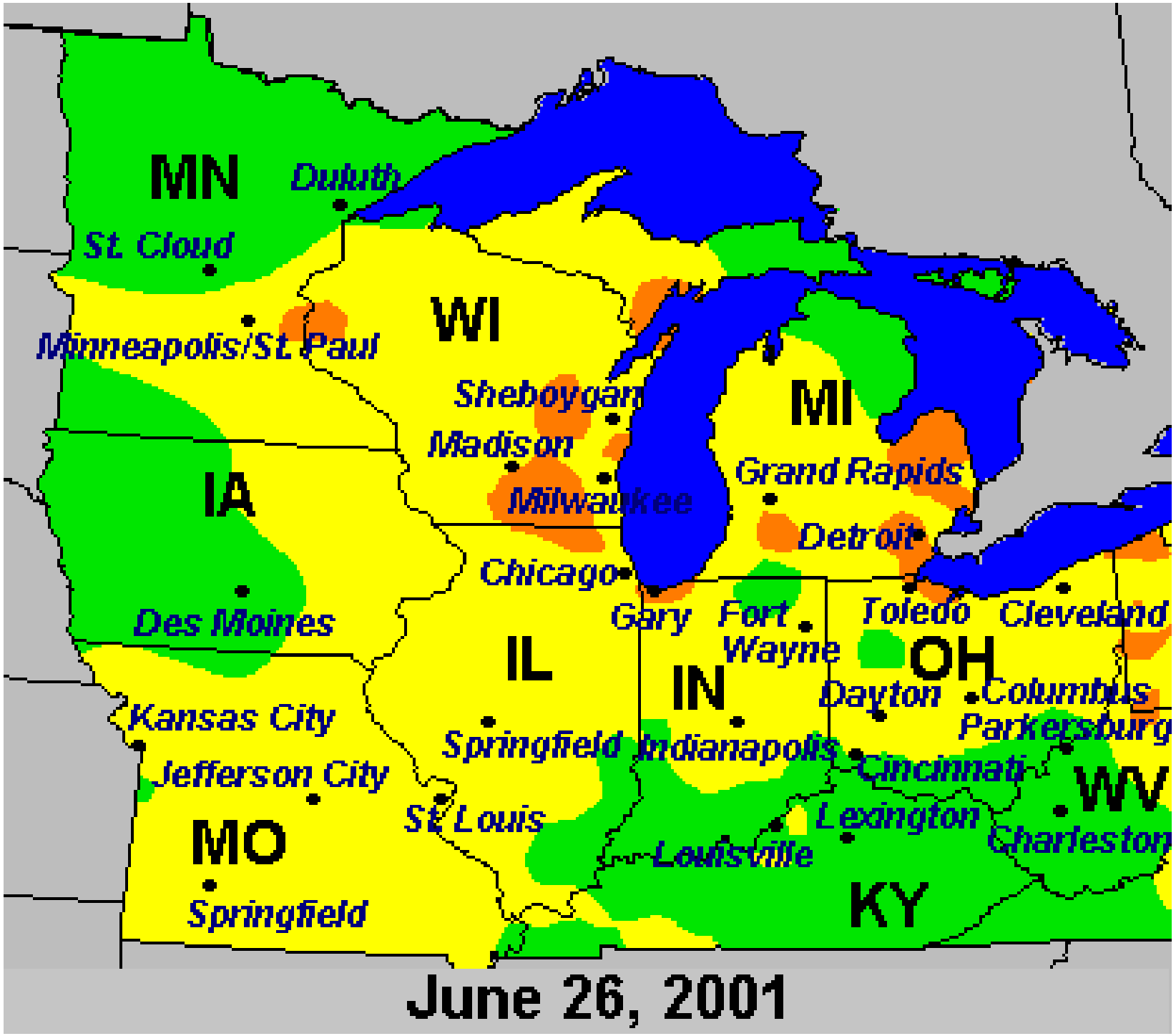
Min= −0.005 at (43,59), Max= 0.003 at (45,56)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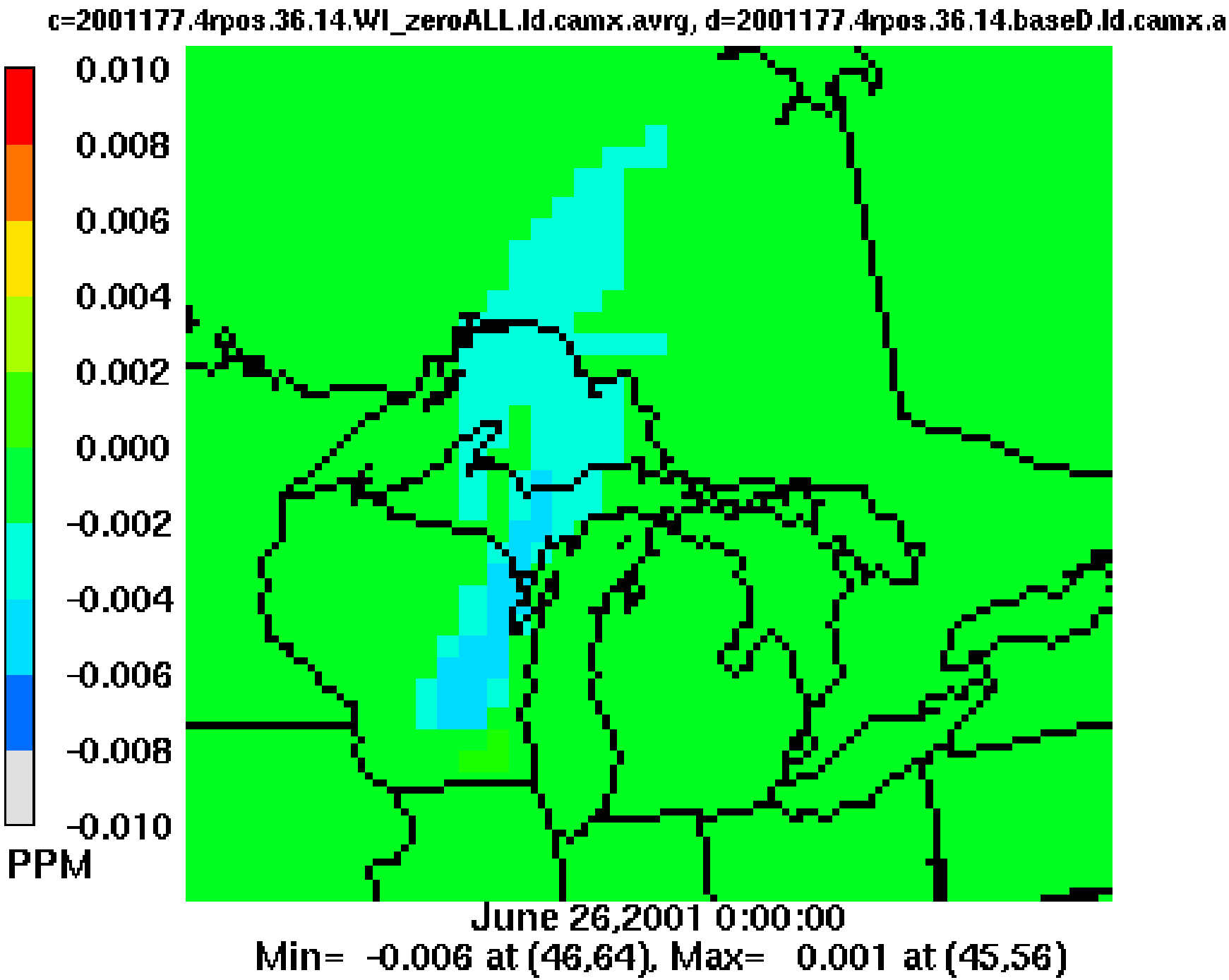
June 26, 2001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-0.004
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-0.010
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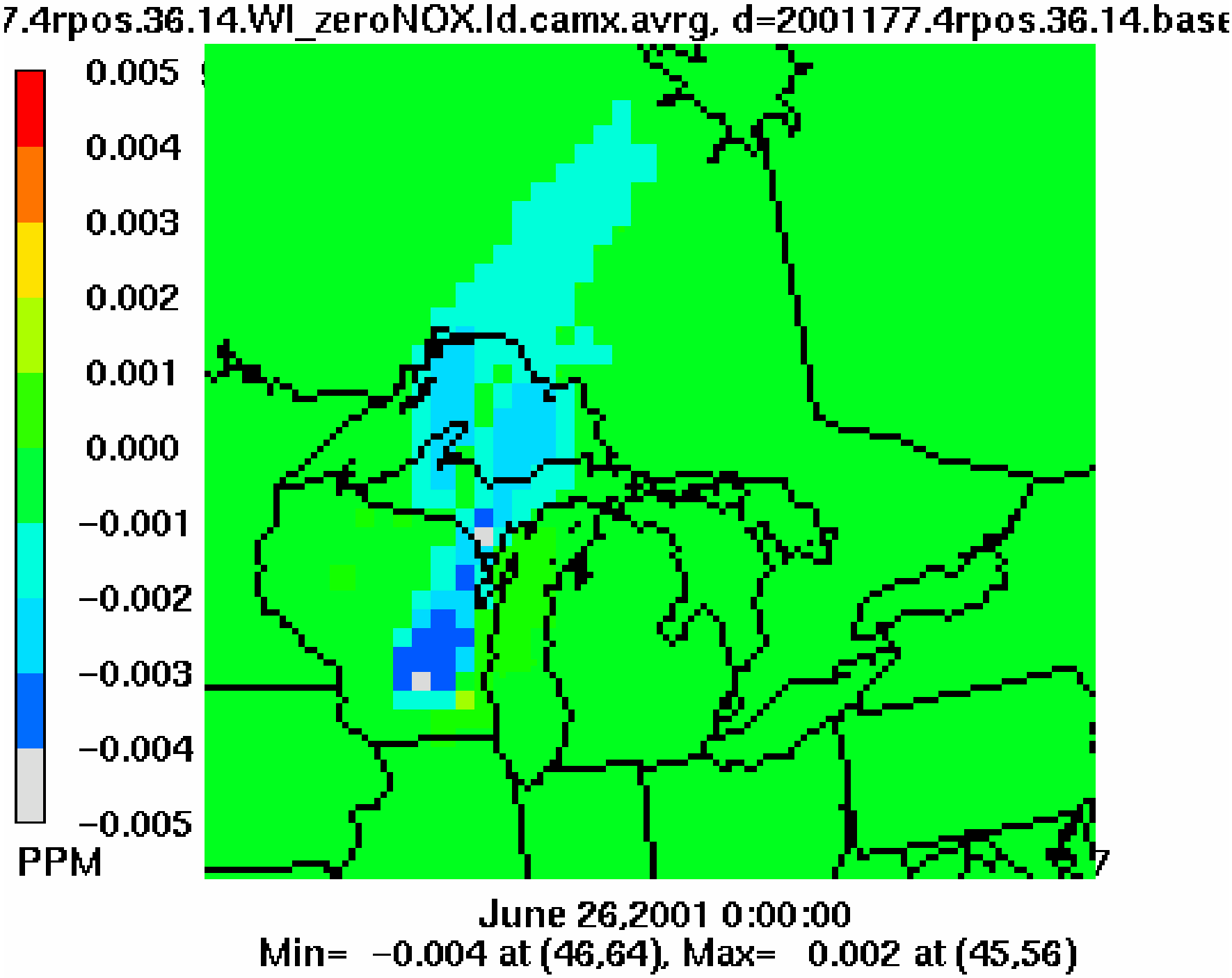
Min= -0.006 at (46,64), Max= 0.001 at (45,56)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−0.002
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−0.005
PPM
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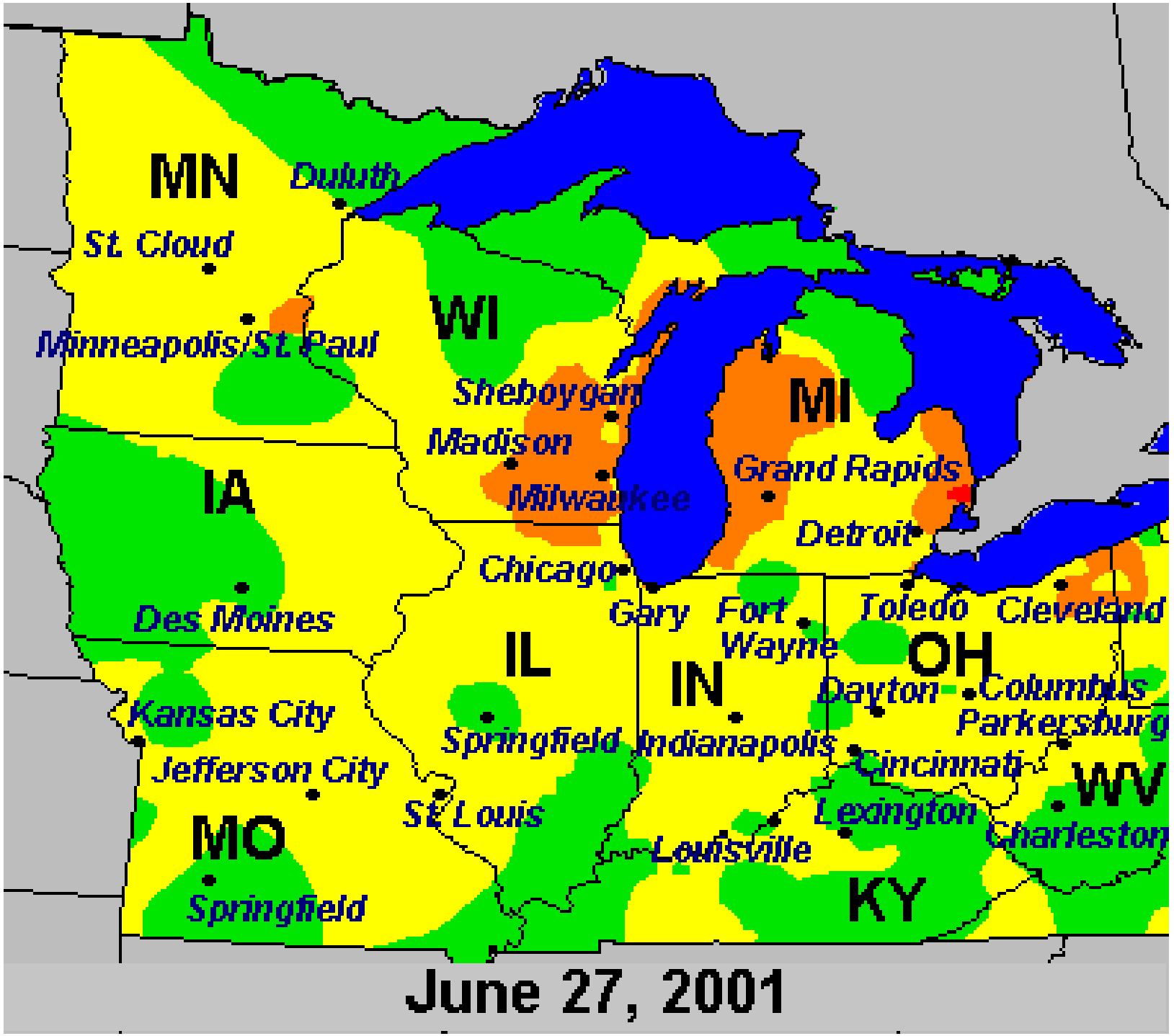
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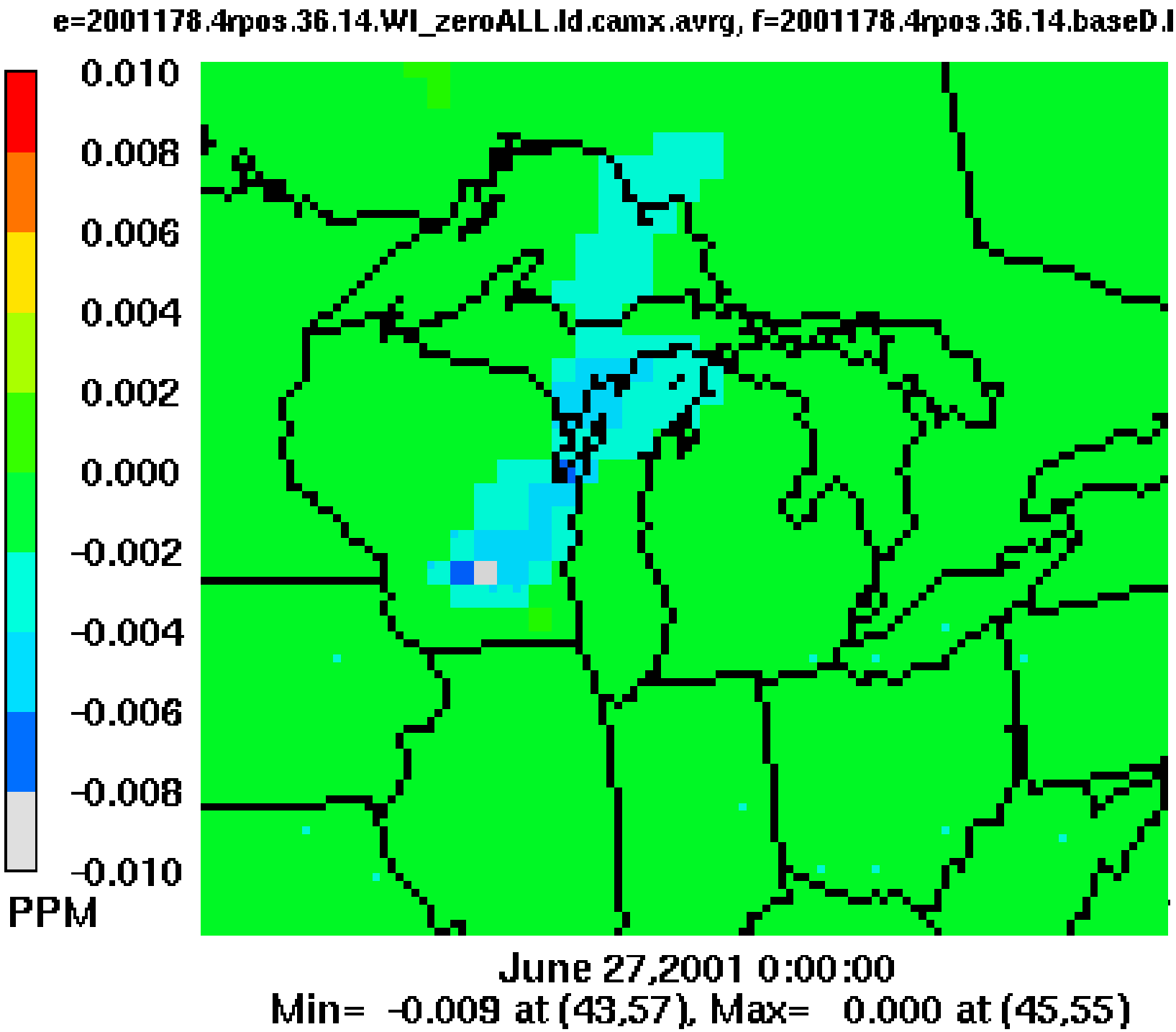
Springfield
June 27, 2001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0.000
-0.002
-0.004
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-0.010
PPM
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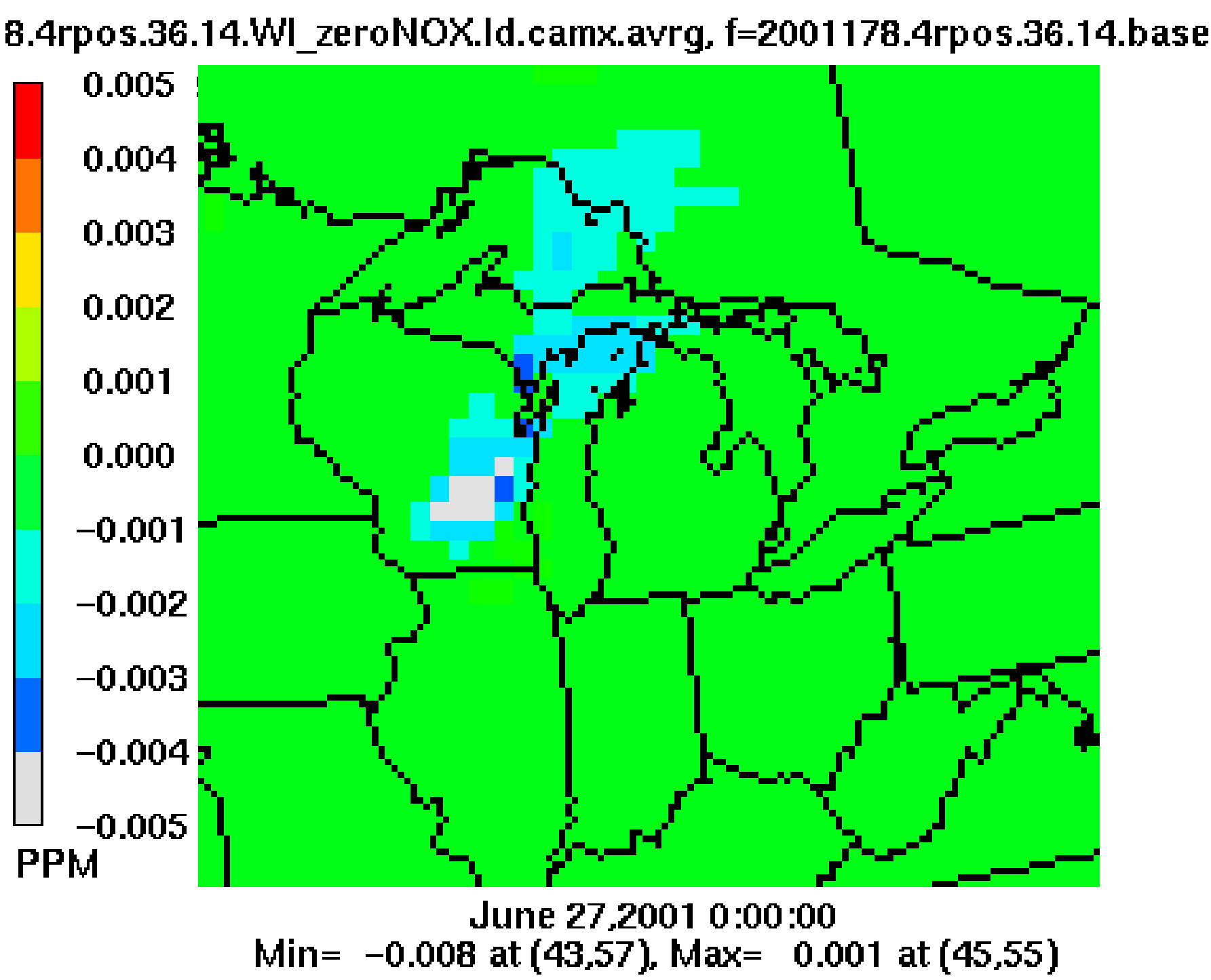
Min= -0.009 at (43,57), Max= 0.000 at (45,55)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0.002
0.001
0.000
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−0.002
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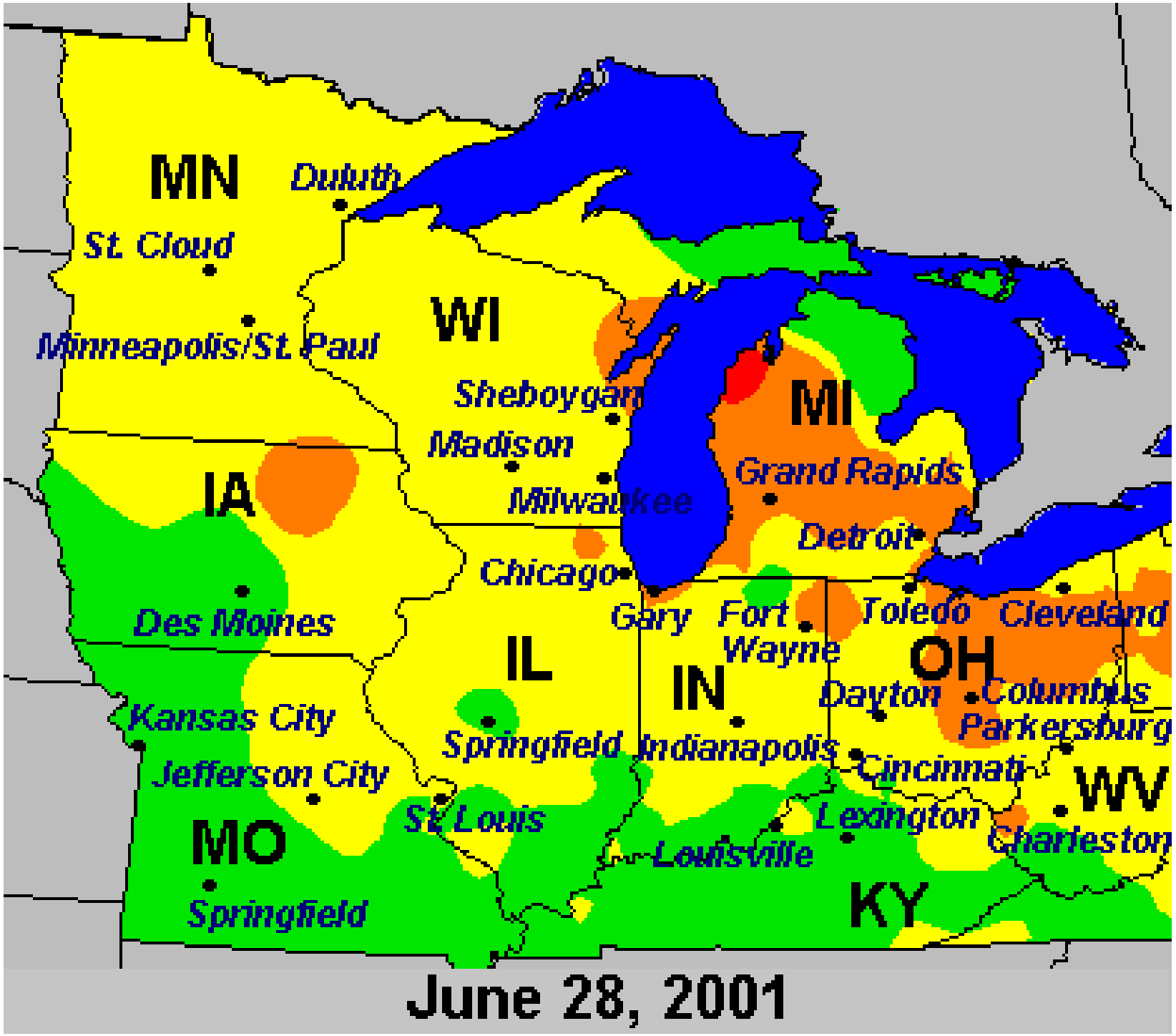
−0.005
PPM
June 27,2001 0:00:00
Min= −0.008 at (43,57), Max= 0.001 at (45,55)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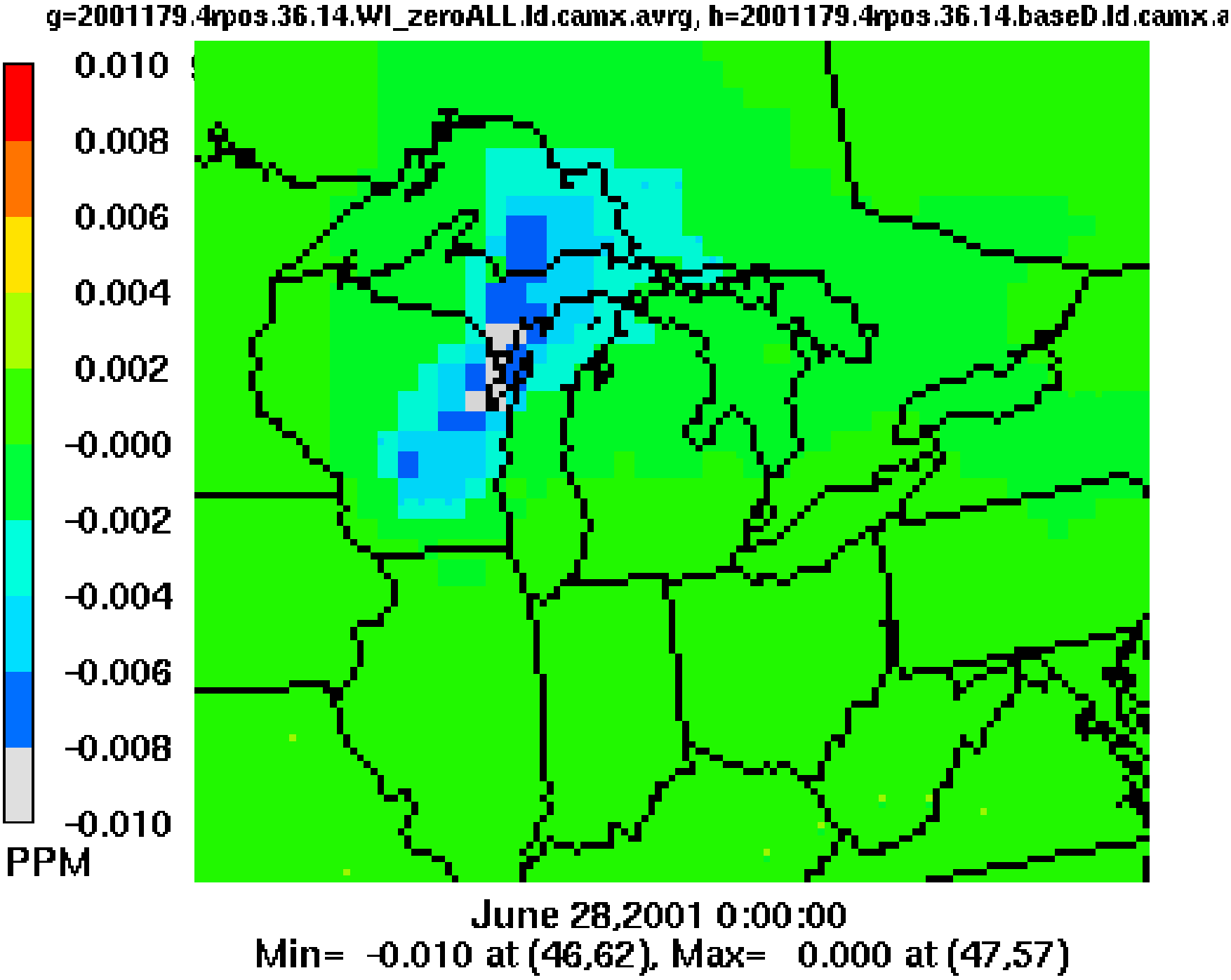
June 28, 2001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-0.002
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-0.010
PPM
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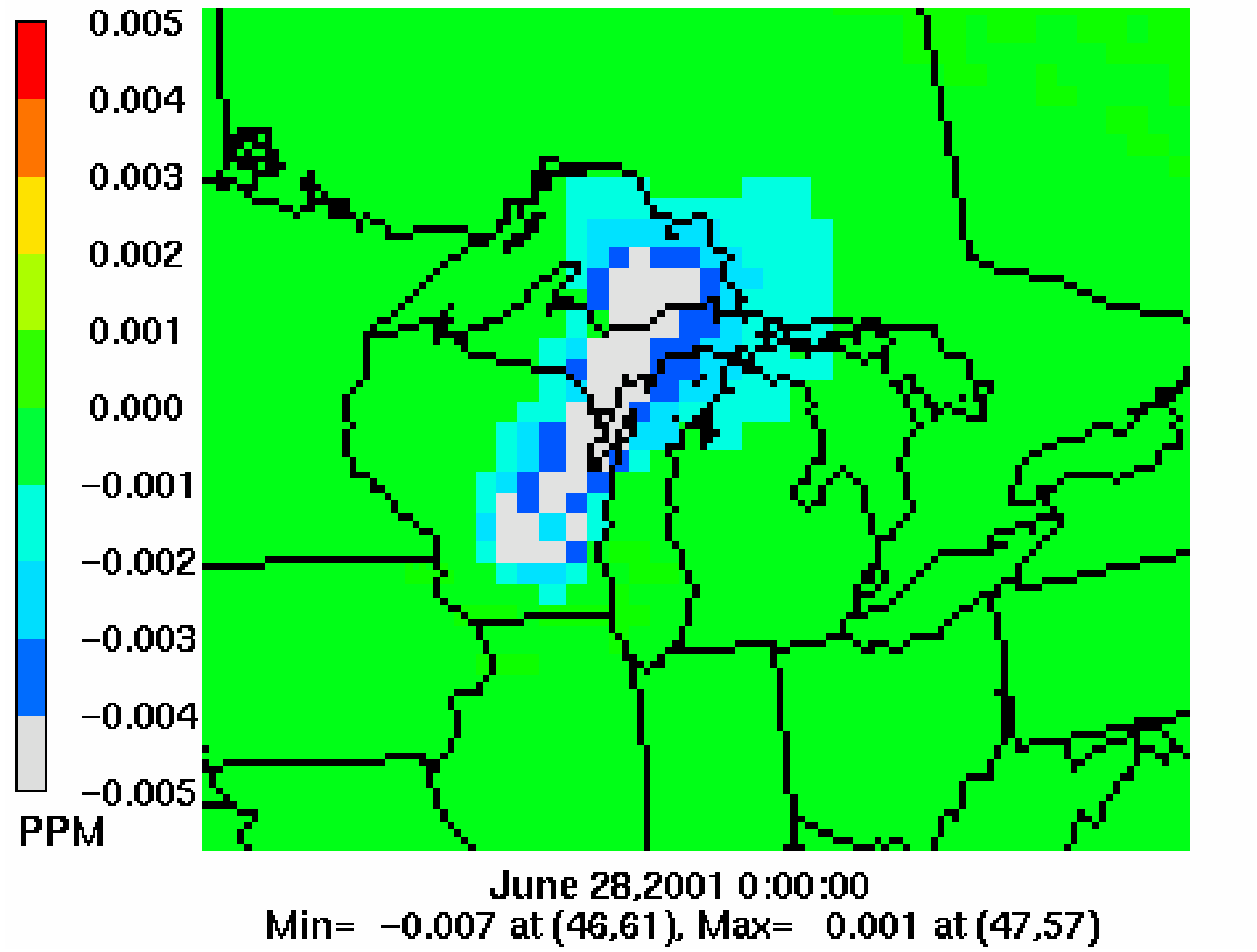
Min= -0.010 at (46,62), Max= 0.000 at (47,57)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PPM
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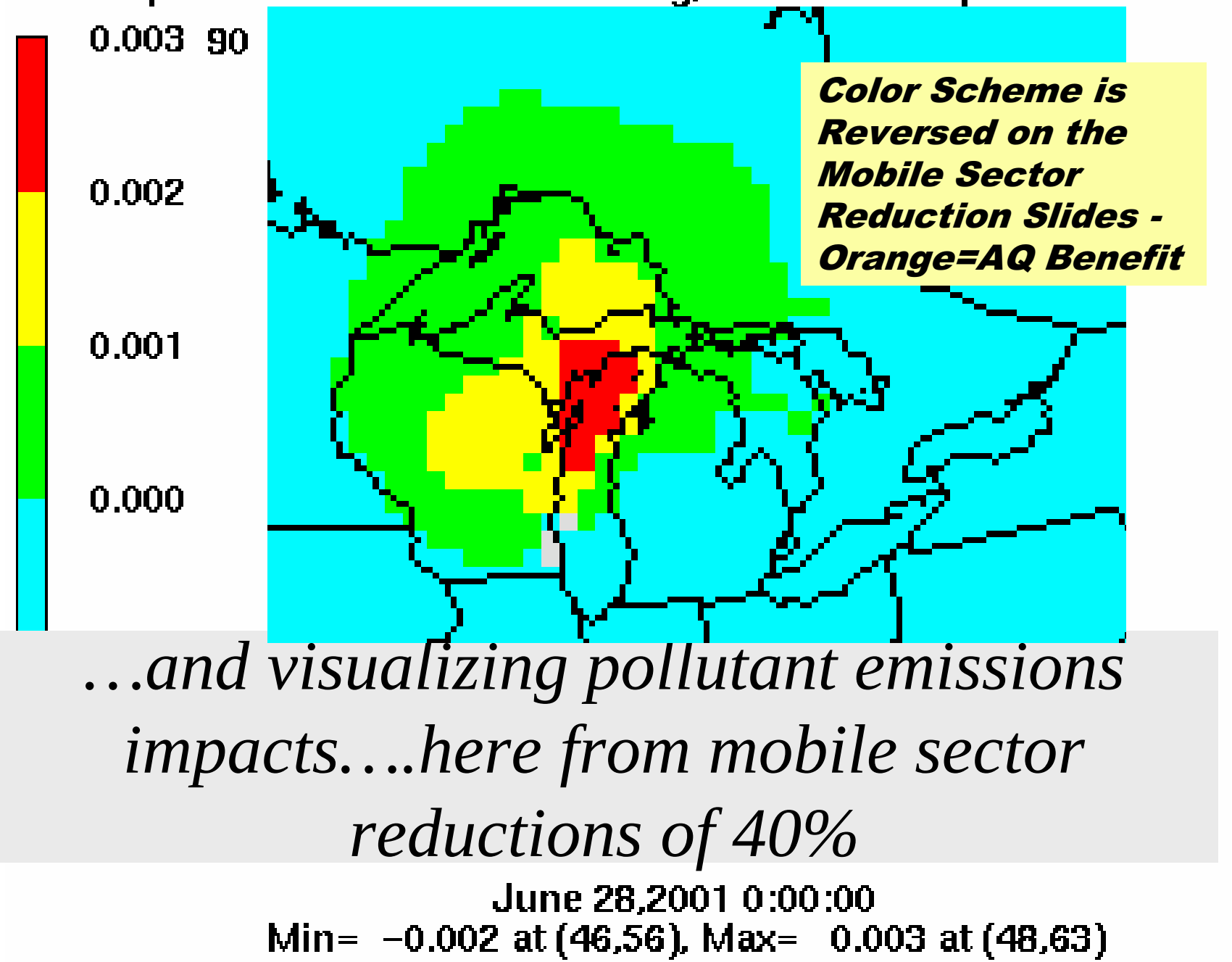
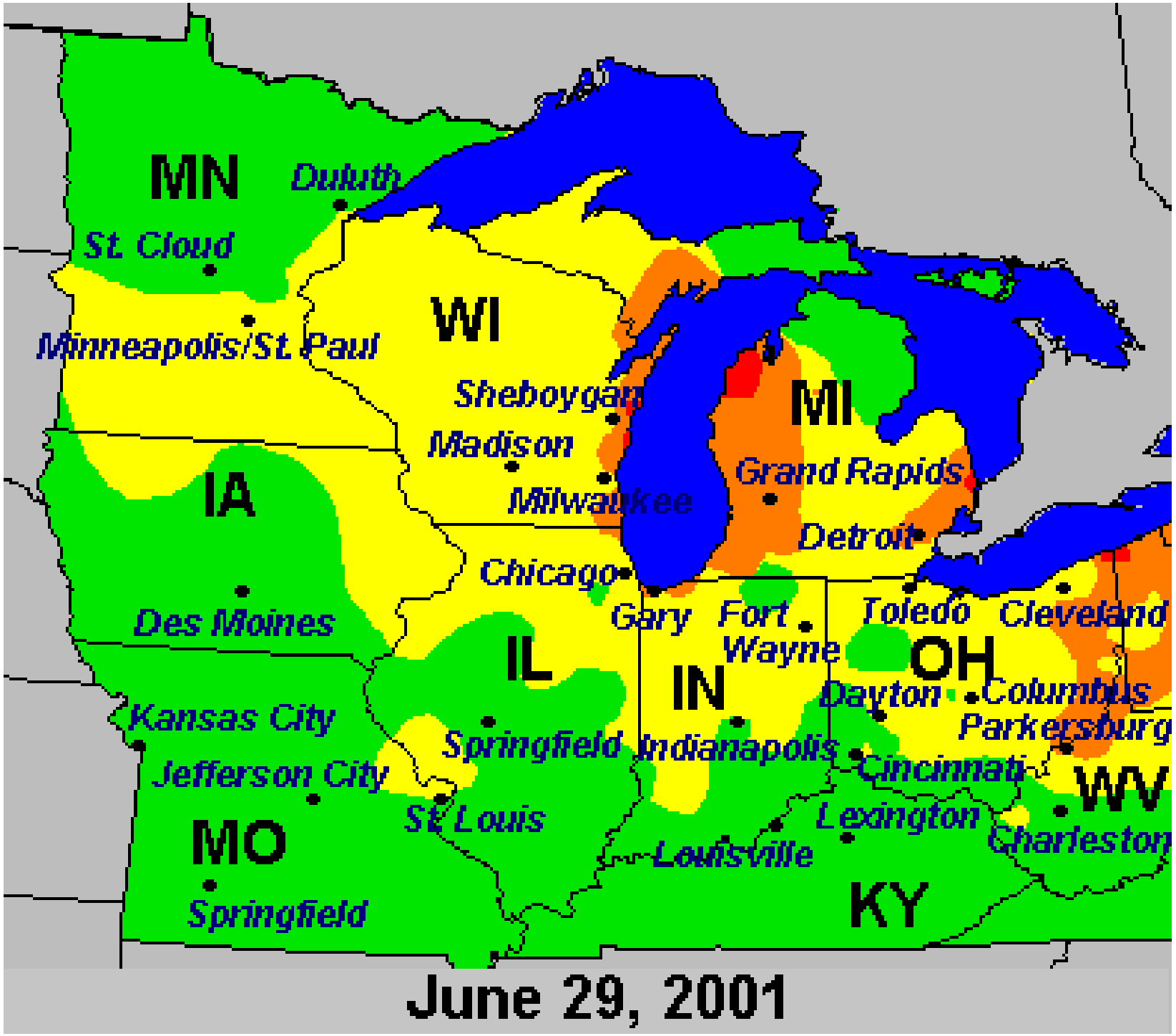
Min= −0.007 at (46,61), Max= 0.001 at (47,57)



…and visualizing pollutant emissions impacts….here from mobile sector reductions of 40%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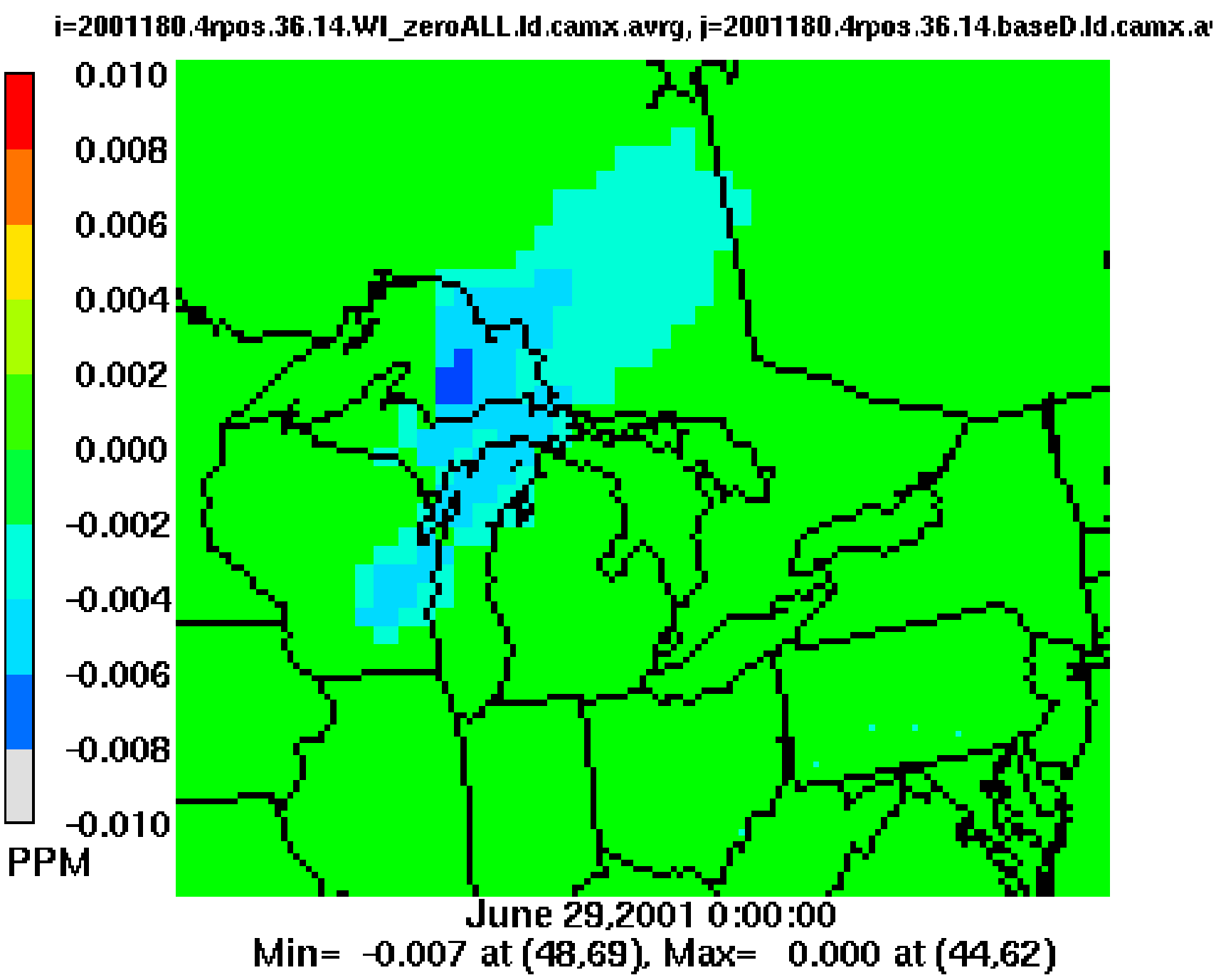
June 29, 2001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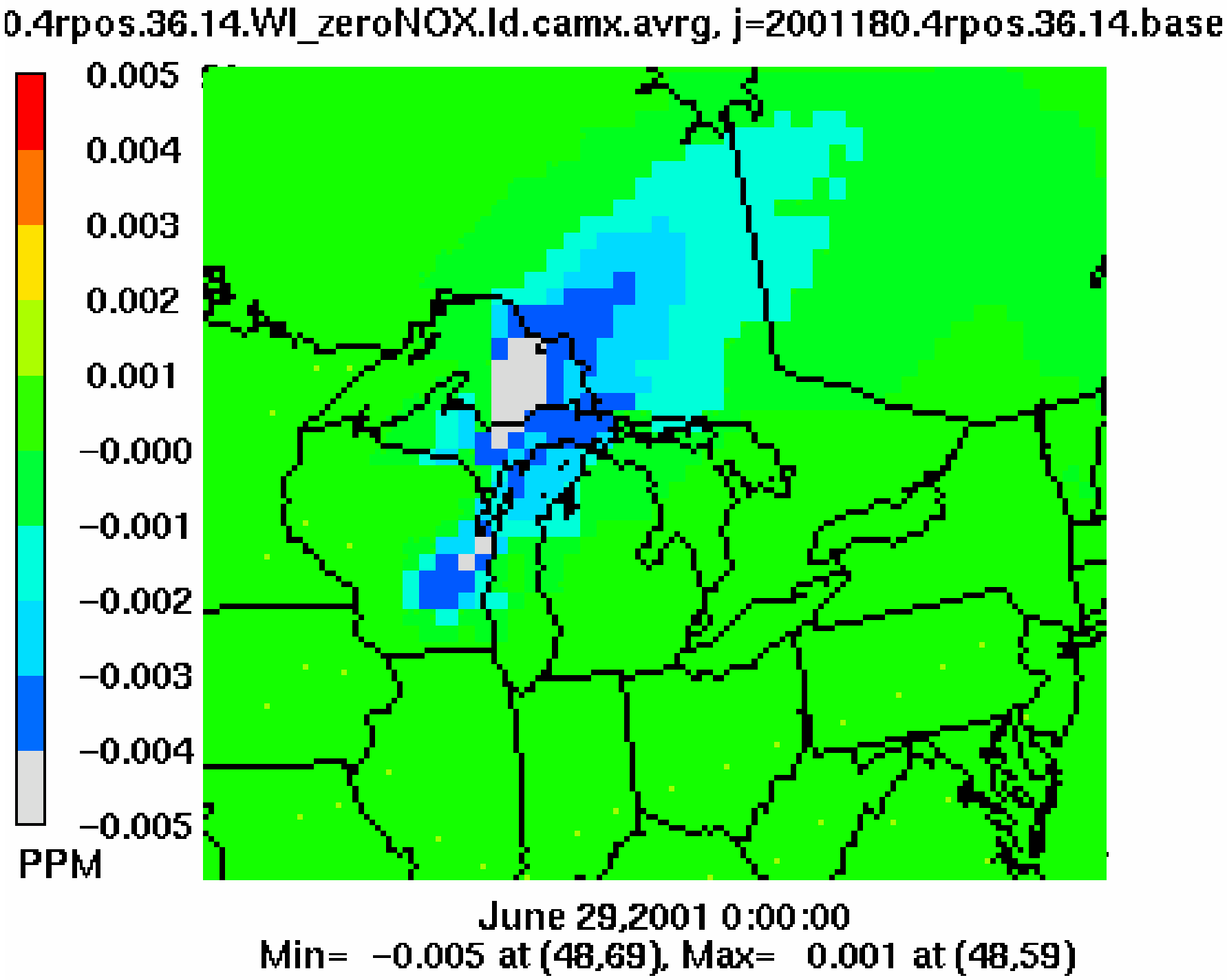
-0.004
-0.006
-0.008
-0.010
PPM
June 29,2001 0:00:00
Min= -0.007 at (48,69), Max= 0.000 at (44,62)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0.004
0.003
0.002
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−0.000
−0.001
−0.002
−0.003
−0.004
−0.005
PPM
June 29,2001 0:00:00
Min= −0.005 at (48,69), Max= 0.001 at (48,59)

Example - WI Vehicle Pollutant Emissions Footprint